

years the bark of such a tree may still show the form of the blaze, but the inscription can only be revealed by cutting away the overlying layers of bark and wood.

Of still greater interest than such trees with their inscriptions hidden within the trunk are those in which carvings still visible on the surface of the bark are duplicated deep in the wood. These are found mostly in trees which have thin, smooth bark, relatively free from ridges and having little tendency to scale off at the surface. In such trees characters cut directly into the bark, but penetrating through the cambium into the young wood, are "split," after the wounds have been healed over, by the new cambium into two portions, one in the bark and the other in the wood.

In Fig. 1a are shown the buried inscriptions (the letters A and B) revealed when a short length of the trunk of a California laurel was being chopped into firewood, and Fig. 1b shows the inscription upon the bark which corresponds to the buried letter B in the wood. The wood section itself shows the twenty-eight annual rings of wood and the bark which have been formed since the carvings were made. The young wood exposed when the carvings were made soon died and became discolored. Subsequently this wood was completely covered with bark including a new layer of cambium. Following this complete closure of the wound, the new cambium produced the annual layers of wood (which buried the inscription within the tree) and the new bark.

In Fig. 1c are shown similar duplicate carvings of peace pipes and tomahawks cut in a branch of the same tree by some youth 23 years before the tree was felled. These carvings in the bark have been somewhat distorted from their original form, which is shown in the wood, as the result of the growth in circumference of the branch, which was of relatively small diameter at the time the carvings were made.

It is not only carvings or other injuries made by man which are thus preserved in duplicate in the wood and bark of trees. Many thin, smooth barked trees show similar records of injuries due to sap-suckers, and wounds due to lightning sometimes leave their record both in the bark and buried within the wood of the tree.

University of California,
Berkeley, California.

THE ANNUAL DINNER FOR 1933

The California Botanical Society met for the annual dinner at the International House, 2299 Piedmont Avenue, Berkeley, on Saturday evening, February 25, at 6:00 p. m. Dr. George J. Peirce, the president, acted as toastmaster. He first called upon Dr. W. L. Jepson, whom he happily styled "Father of the California Botanical Society." Dr. Jepson discussed briefly the effect of the record low temperatures of last December upon certain native and introduced species. Mr. J. T. Howell, next called upon, gave a resumé of the impressions received from the Galapagos Islands and way points, by the botanist of the

recent Templeton Crocker Expedition. Dr. H. L. Mason in the capacity of "Keeper of the Plant Morgue" spoke briefly of his interest in the future of the University of California Herbarium.

The lecture of the evening was given by Dr. D. T. MacDougal of the Carnegie Institution of Washington, the subject being "Features of Growth in Monterey Pine." Dr. MacDougal demonstrated the dendrograph, by means of which he has been enabled to keep accurate record of the activity of the cambium of this tree over a period of years. The Monterey pine, he pointed out, lives a hand-to-mouth existence, storing starch for a very limited time only. The cambium sheath has no periodicity, does not become fatigued, and continues its activity whenever temperature conditions are favorable. Activity ceases at 8 degrees Centigrade. Having seen the evidence, his hearers are likely to remember that each of the more than three million needles of an average tree of this species produces during the three years of its active life the equivalent of the wood contained in three toothpicks. The efficiency of the cambium of this pine allows a rapid, almost phenomenal growth whenever conditions are favorable. The speaker's stimulating subject and informal manner invited discussion, and there were several anecdotes of the prowess of this California conifer. In New Zealand where there are extensive plantations, a mature crop of timber may be harvested three times during the century.

Eighty-two members and guests attended the dinner which was planned by Dr. and Mrs. H. L. Mason.—E. K. CRUM.

PLANT ALIENS AT QUINCY

DAVID D. KECK

Man, in his migrations over the earth, has carried his civilization with him. He delights in the possession of familiar objects whose presence serves as a reminder of that civilization he has relinquished in order to pluck an existence from untried and virgin soils. By his very nature, the pioneer must possess a fortitude, stoicism and disregard for the personal comforts of life which are qualities most of us lack. Yet, in the heart of every man there lingers at least some trace of sentiment which, in the pioneer, causes him to carry strange objects into the wilderness. This is often accomplished with great difficulty and the cherished belongings may be peculiarly ill-fitted to their new surroundings.

Everyone recalls those bright flowers that surrounded his childhood home and enjoys the sentiment bound up with them. So it is not strange that garden flowers have been among the prominent objects to migrate with first settlers to new frontiers, regardless of the fact that the flora of the new region may far surpass that which was left behind. Other cultivated plants of even more importance to the pioneer are those useful as food for man and beast. These have been very freely carried about the globe. In addition, certain plants of traditional, but perhaps more or less fanciful medicinal value are